



SEPTEMBER, MDCCCLIV.

THE ZOOLOGIST:

A

POPULAR MONTHLY MAGAZINE

OF

NATURAL HISTORY

AND

JOURNAL FOR RECORDING FACTS & ANECDOTES

RELATING TO

QUADRUPEDS, BIRDS, REPTILES, FISHES, ANNELIDES,
INSECTS, WORMS, ZOOPHYTES, &c.

THEIR HABITS, FOOD, RETREATS, OCCASIONAL APPEARANCE,
MIGRATIONS, NESTS AND YOUNG.

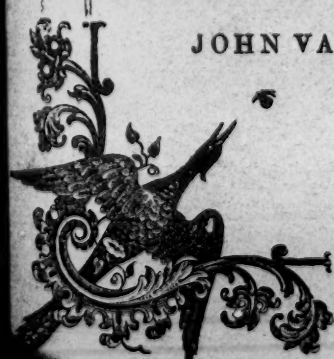
No. CXLIII.

LONDON:

JOHN VAN VOORST, PATERNOSTER ROW.

Price ONE SHILLING.

E. NEWMAN, 9, DEVONSHIRE STREET



New Species of Paussus.

Mr. Westwood read descriptions of four new Paussi, viz. *P. pacificus* from Ceylon, *P. De Geerii*, *P. Afzelii*, and *P. Bohemaniai*, all from Caffraria; the first communicated for description by Herr Dohrn, the others by Professor Boheman. He also read "Notes on various Insects," by Mr. W. Varney.

New Part of the 'Transactions.'

Part 1, Vol. iii., new series of the 'Transactions,' was on the table.—*J. W. D.*

A List of the Mollusca hitherto found in the Province of Moray and in the Moray Firth. By the Rev. GEORGE GORDON.

(Continued from page 4318).

Gasteropoda Prosobranchiata.

Tufted Canoe-shell, *Chiton fascicularis*. Rather rare. Burghead, Mr. Murray.

Hanley's Canoe-shell, *Chiton Hanleyi*. A specimen taken from a fish killed in the Moray Firth was identified by A. Hancock, Esq., as belonging to this species.

Red Canoe-shell, *Chiton ruber*. Occasionally found in the Firth. A specimen from Mr. Duff's cabinet is now placed in the Elgin Museum.

Ash-coloured Canoe-shell, *Chiton cinereus*, (*C. marginatus*, Flem. and Mac., and also *C. fuscatus*, Mac.) Very abundant.

White Canoe-shell, *Chiton albus*. Not common. Has been discovered at Burghead by Mr. Murray.

Slater-like Canoe-shell, *Chiton asellus* (*C. cinereus*, Flem. and Mac.) Common; but in deeper water, or farther below high-water mark than *C. cinereus*.

Marbled Canoe-shell, *Chiton marmoreus*. A few specimens of this pretty Chiton have been found in fish killed in the Moray Firth: it has also been met with by Mr. Murray at Burghead.

Common Limpet, *Patella vulgata*. Wherever there is rock or boulder within tide-mark this limpet abounds. Its numbers, however, on the Elginshire coast, in the vicinity of the fishing villages of Burghead, Hopeman and Lossiemouth, are comparatively few, as it is much used as bait, on account of the prevailing scarcity of the common mussel.



Transparent or Smooth Limpet, *Patella pellucida*, (also *P. levis*, Flem. and Mac.) Common, in both varieties.

Tortoise-shell Limpet, *Acmaea testudinialis*. This, when cleaned, is a very pretty little limpet, and well deserves its specific title. It has hitherto been reckoned among the scarcer British shells. Its recent discovery in several localities, together with its abundance in the Moray Firth, from Stotfield to Burghead, has inclined some to think that there has lately been some extraordinary increase or a southerly migration of the species, while others suppose that it has been overlooked as the young of the common limpet.

Virgin Limpet, *Acmaea virginea*, (*Patella virginea*, Flem.; *Lottia virginea*, Mac.) Not uncommon in the Firth. Mr. Murray has presented some fine specimens, collected at Burghead, to the Elgin Museum. Frequent in shell-sand, Portsoy.

Tawny Limpet, *Pilidium fulvum*. "In thirty fathoms, twenty miles north of Kennard's Head, Aberdeenshire (Thomas)," *F. & M.* One specimen in Edward's collection, March, 1854.

Common Tooth-shell, *Dentalium entalis*. Common.

Hungarian Fool's-cap, *Pileopsis Hungaricus* (*Capulus Hungaricus*, Flem. and Mac.; also *C. militaris*, Mac.) Two specimens have been found by Mr. Murray on the fishermen's lines at Burghead, and two more have since been discovered by Mr. Macdonald among shells sent to him from Buckie. Occasionally in shell-sand. Also in Edward's collection.

Net-worked Fissurella, *Fissurella reticulata* (*F. Græca* and *apertura*, Flem.) Three specimens were obtained from shell-sand collected on the South-eastern coasts of Caithness, and obligingly forwarded by the Rev. Mr. Whyte, of Canisby.

Noah's Chink-Limpet, *Puncturella Noachina*, (*Rimula Flemingii*, Mac.) "In sixty fathoms, Troup Head, (Thomas)," *F. & H.*

Common Slit-Limpet, *Emarginula reticulata*, (*E. fissura*, Flem. and Mac.; also *E. curvirostra*, Mac.) Has been frequently met with at the different fishing villages of the Moray Firth.

Jujube Pyramid-Shell, *Trochus zizyphinus* (also *Z. conuloides*, Mac.) Common. The authors of the 'History of British Mollusca, p. 491, vol. ii., notice the late Dr. Macgillivray's specific name "*Sisyphinus*," and his derivation of this term ('Mollusca of Aberdeenshire,' p. 53) from some fancied analogy to the rolling-stone of Sisyphus; but they do not seem to have observed his correction of this spelling and derivation given in an after part of his volume (p. 349), where he says,

among other emendations, "*Zizyphinus*. Incorrectly *Sisypkinus*. *Zizyphum*, jujube, a kind of fruit."

Alabaster Pyramid-Shell, *Trochus alabastrum*. Rare. "Lieut. Thomas has dredged it on a stony bottom in sixty fathoms, off Troup Head, Aberdeenshire," *F. & H.* Mr. Macdonald has also (August, 1852) dredged this species in forty fathoms, off Lossiemouth.

Martin's Pyramid-Shell, *Trochus millegranus* (*T. Martini*, Mac.) Occasional. "In thirty to thirty-five fathoms, Moray Firth (Mc Andrew and E. F.)," *F. & H.* "This pretty *Trochus*" has been sparingly found at Lossiemouth, and an example of it has been met with by Mr. Murray at Burghead.

Tumid Pyramid-Shell, *Trochus tumidus*. Common.

Gray purple-streaked Pyramid-Shell, *Trochus cinerarius*. Very common. All the species of this genus, particularly the present, are provincially known as "sillar- or silver-buckies."

Waved *Trochus*, *Trochus undulatus*. From among shell-sand collected on the South-eastern coasts of Caithness, by the Rev. Mr. Whyte, of Canisby.

Pearly Pyramid-Shell, *Trochus Helicinus*, (*Turbo margarita*, Flem., *Phorcus margarita*, Mac.) Frequent near low-water mark and in shell-sand. To this list of Moray-Firth Trochi one addition at least may be expected to be made by future observers, viz., *T. Montagui*, found "in thirty fathoms at Buchanness, and from seven to forty fathoms in Orkney," *F. & H.*

Messrs. Forbes and Hanley (p. 525, vol. ii.) quote Dr. Macgillivray's *Monodonta crassa*, two specimens of which were found near Peterhead (Aberd. Moll. p. 325), as a synonym of their *Trochus lineatus*, to which species they however assign a "South-western and Western range," and thus, as it were, exclude the Aberdeenshire locality. They also state that *Trochus umbilicatus* "is absent from the entire Eastern side of Britain" (p. 522); yet the *Trochus umbilicatus* of the Aberdeenshire Mollusca is quoted as the same species, which, by Dr. Macgillivray (p. 325), is said to be "common about Slains, Peterhead and Banff." These two statements are evidently at variance; but the error probably originated with Professor Macgillivray. It is not at all likely that the true *T. lineatus* has been found so far North.

Painted or Oval-banded Phasianella, *Phasianella pullus*, (*Cingula pullus*, Flem.; *Rissoa pullus*, Mac.) A few fragments of this beautiful little shell were found in shell-sand collected on the S. E. shores of Caithness. They were probably, however, brought there, from a more westerly locality, by the tidal currents through the Pentland Firth.

In districts where attention is paid to the indigenous Mollusca, a few shells, more than doubtful intruders, or having no good claim to denizenship, generally come under the eye, and are most properly noticed by the naturalist. *Neritina fluviatilis* and *Paludina vivipara* are often met with in such circumstances, being carried in ballast or otherwise beyond their native localities. Thus the former has been got from Findhorn by Mr. Murray, and Mr. Martin found a shell of *Paludina vivipara* in the estuary of the Lossie. The latter has also been recently picked up in a mutilated state among sea-shells on the N.E. of Findhorn.

Nerita-like Periwinkle, *Littorina neritoides*. Burghead, Mr. Murray. Abundant on the rocks about high-water mark between Burghead and Cummingston, August, 1853; Stotfield, Covesea, &c., Mr. Macdonald.

Common Periwinkle or "Buckie," *Littorina littorea*, (*Turbo littorea*, Flem.) Abundant. This is the only univalve that is ever, and that but rarely, collected and exposed for sale in the market-towns bordering on the Moray Firth.

Coarse Periwinkle, *Littorina rudis*, (*Turbo rudis*, Flem.) Very abundant, and in many of its varieties.

Flat-topped Periwinkle, *Littorina littoralis*, (*Nerita littoralis*, Flem.; *Littorina neritoides*, Mac.) Everywhere abundant along the coast.

Pallid Lacuna, *Lacuna pallidula*, (*Natica pallidula*, Flem.) Frequent.

Banded pink-tipped Lacuna, *Lacuna puteolus*, (*Turbo fasciatus* and *Natica lacuna*, Flem.; *L. fasciata* and *sulcata*, Mac.) Found among shell-sand from the South-eastern shores of Caithness.

Variable Lacuna, *Lacuna vincta*, (*Turbo quadrifasciata*, Flem.) Common; often in shell-sand.

Thickened Lacuna, *Lacuna crassior*, (*Turbo crassior*, Flem.) A specimen dredged by Mr. Macdonald in the Firth. It has also been found in shell-sand.

The Shetland Rissoa, *Rissoa Zetlandica*, (*Cyclostoma Zetlandica*, Flem.) Found in shell-sand from S.E. of Caithness.

Bean's Rissoa, *Rissoa Beanii*. Also found, with the preceding, in the Caithness shell-sand, but it seems to be more rare.

Punctured Rissoa, *Rissoa punctura*, (*Cingula reticulata*, Flem.; *R. puncturata*, Mac.) Occasionally found among shell-sand. Frequent among that from Caithness. Mr. Murray has found it alive among the roots of *Laminaria digitata* at Burghead.

Striated Rissoa, *Rissoa striata*, (*Cingula semicostata* and *striata*, Flem.; *Odostomia semicostata* and *Marionæ*, also *R. gracilis*, Mac.) Frequent in shell-sand from all parts of the Firth, and plentiful, alive, between tide-marks at Burghead, Lossiemouth, &c.

Small or Spot-banded Rissoa, *Rissoa parva*, (*Cingula parva* and *alba*, Flem.; *R. alba*, Mac.) Common. "Frazerburgh and Gamrie," Mac.

Semistriated Rissoa, *Rissoa semistriata*, (*Cingula semistriata*, Flem.; *R. tristriata*, Mac.) Frequent.

Red Rissoa, *Rissoa rubra*, (*Cingula rubra* and *unifasciata*, Flem.) Common. The variety *unifasciata* is also met with frequently.

Reddish brown-banded Rissoa, *Rissoa cingillus* (*Cingula cingilla*, Flem.; *R. cingillata*, Mac.) Found in shell-sand from the South-eastern coasts of Caithness.

Slake Rissoa, *Rissoa Ulvæ*, (*Cingula Ulvæ*, Flem.) "Abundant in the estuary of the Findhorn," Mr. John Shand.

From their known range it is most probable that the following species will also be found in the Moray Firth, viz., *Rissoa costata*, "Northumberland and Orkneys," and *Rissoa inconspicua*, "Scarborough and Lerwick."

Although hitherto not met with in the Moray Firth, yet *Jeffreysia diaphana* has been found on each side of it, viz., at "Lerwick" and "Northumberland," F. & H.

Brown Skenea, *Skenea planorbis*, (*S. depressa*, Flem. and Mac.) Frequent in shell-sand.

Ammonite Skenea, *Skenea rota*. Among some shells which Joshua Alder, Esq., Newcastle, most kindly took the trouble of naming, was a specimen of this rare Skenea, which was picked out of shell-sand gathered on the South shore of the Moray Firth.

Semistriated Skenea, *Skenea divisa*. "Frazerburgh," Macgillivray.

Augur Turritella, *Turritella communis*, (*T. terebra*, Flem. and Mac.) Common all along the coast, and often taken up by the fisherman's line.

Pelican's-foot Aporrhais, *Aporrhais pes-pelecani*, (*Rostellaria pes-pelecani*, Flem. and Mac.) This common shell is popularly known as the "key of the sea."

Sinistral Cerithium, *Cerithium adversum*, (*Terebra perversa*). A well-marked portion of a shell was picked out of shell-sand collected on the South-eastern coasts of Caithness.

Trevelyan's Scalaria, *Scalaria Trevelyana*. Mr. Macdonald has dredged a single specimen of this northern, yet pretty shell, off

Lossiemouth; and Mr. Murray has found another on the fishermen's lines at Burghead. The only British locality yet known for *Scalaria Grœnlandica*, "off Duncansbay Head," where Mr. McAndrew dredged fragments of it, if not within, is close on the borders of the district assigned to this list.

Glossy *Aclis*, *Aclis nitidissima*, (*Turritella nitidissima*, Flem.) Found in shell-sand, both from Burghead and Lossiemouth. Another species may be looked for as an addition to this list, viz., *A. Ascaris*. It has been found by Mr. Alder on the East coast, and by Mr. McAndrew in Zetland.

Polished *Eulima*, *Eulima polita*, (*Phasianella polita*, Flem.) A small specimen, discovered by Mr. Macdonald, is now in the Elgin Museum; and a larger one was observed in Edward's collection, from Banff.

Two-lined *Eulima*, *Eulima bilineata*, (*Phasianella subulata*, Flem., *E. subulata*, Mac.) A small specimen was dredged by Mr. Macdonald in the Moray Firth, and two more have been found in shell-sand from Caithness. The following species of *Eulima* have a range, in the North and East coasts, including the Moray Firth, viz., *E. distorta*, "Orkney, Aberdeen and Northumberland," and *E. subulata*, "Zetland and Scarborough."

Orange-filleted *Chemnitzia*, *Chemnitzia fulvocincta*, (*Turritella simillima*, Flem.) Mr. Macdonald has dredged one specimen of this beautiful shell, alive, in the Moray Firth. A few other specimens, chiefly broken, have been found in shell-sand.

Indistinct *Chemnitzia*, *Chemnitzia indistincta*, (*Turritella truncata*, Flem.) Dredged alive, off Lossiemouth, by Mr. Macdonald. Not unfrequent among shell-sand.

Unidentate or Single-toothed *Odostomia*, *Odostomia unidentata*, (*O. plicata*, Flem.) This is by far the most common species of this genus within this district. It is frequent among the shell-sand of Caithness. Mr. Macdonald has found it alive on a dead bivalve, dredged in the Firth, in 1853.

Rissoa-like *Odostomia*, *Odostomia Rissoides*, (*O. scalaris*, Mac.) A few specimens have been picked out of shell-sand from Caithness. Mr. Macdonald has found it alive between tide-marks, at Burghead.

Cylindrical *Odostomia*, *Odostomia cylindrica*, (*Turbo nivosus*, Flem.) Two specimens of this rare shell have been found among a quantity of shell-sand from the S.E. coast of Caithness.

Oblong or divided *Odostomia*, *Odostomia interstincta*, (also *O. oblonga*, Mac.) Rare. A few specimens from Caithness shell-sand.

Spirally-ribbed *Odostomia*, *Odostomia spiralis*, (also *O. plicatula*, Mac.) Found in shell-sand, gathered at Portsoy, by Miss Pirie. It also occurs among the shell-sand from Caithness. Among a set of specimens forwarded to Albany Hancock, Esq., he identified and most kindly named the above species of this most difficult genus.

Cross-lined or Decussated *Odostomia*, *Odostomia decussata*, (*Turbo decussata*, Flem.) A few specimens were picked out of the shell-sand, gathered at Portsoy, by Miss Pirie. The following species of *Odostomia* have been found both to the North and to the South of the Moray Firth, viz. *O. plicata*, "Lerwick" and "Aberdeenshire;" *O. insculpta*, "Lerwick and Aberdeen."

McAndrew's *Eulimella*, *Eulimella Scillæ*. "In thirty-four fathoms, Elgin," *F. & H.*

Needle *Eulimella*, *Eulimella acicula*. Two specimens, most probably of this species, were dredged off Lossiemouth by Mr. Macdonald.

Beaded *Natica*, *Natica monolifera*, (*N. glaucina*, Flem.) Not rare.

Alder's *Natica*, *Natica nitida*, (*N. Alderi*, Flem. and Mac.) Frequent. A beautiful series of this pretty species has been collected at Burghead by Mr. Murray.

Sordid *Natica*, *Natica sordida*. Mr. Macdonald has dredged one specimen off Lossiemouth; Mr. Duff procured another from a Lossiemouth fisherman. Both are now in the Elgin Museum.

Montagu's *Natica*, *Natica Montagui*, (*N. rufa*, Flem. and *N. rutila*, Mac.) Not rare, although far from being so frequent as *N. nitida*.

Helicine *Natica*, *Natica Helicoides*. One from a fish-stomach, 1850. Mr. Martin, in 1853, met with another in a fishing-boat at Lossiemouth.

Striated *Velutina*, *Velutina lævigata*, (*V. striata*, Mac.) Frequent. Sometimes cast ashore in considerable abundance, as on the sands east of Lossiemouth, March, 1853.

Flexible *Velutina*, *Velutina flexilis*, (*Bulla flexilis*, Flem., *Coriocella flexilis*, Mac.) Very rare. A specimen, found by Mr. Martin near Lossiemouth, is now in the Elgin Museum.

Haliotis or Ear-shaped *Lamellaria*, *Lamellaria perspicua*, (*Sigarettus Haliotideus*, Flem.) The only locality, as yet observed, for this mollusk in the Moray Firth is Burghead; the supposed Ptoroton of Ptolemy, the Eccialshacca of Torphæus. Mr. Murray, who discovered it, states that it is by no means rare.

Northern Trichotropis, *Trichotropis borealis*, (*Fusus Laskeyi* and *Trichotropis umbilicatus*, Mac.) Has been found in two instances on the southern shore of the Firth; at Burghead by Mr. Murray, and at Buckie by Mr. Macdonald.

Hedgehog Rockshell, *Murex erinaceus*, (*Triton erinaceus*, Flem.) Only one, and that a mutilated specimen, has been found by Mr. Martin at Lossiemouth, probably brought thither by tidal currents, or in ballast, from some distant locality.

White Whelk or "Horse Buckie," *Purpura lapillus*. Most abundant around the whole coast; particularly, and in many of "the guises it presents," at the "back shore" of Burghead.

Net-worked Nassa, *Nassa reticulata*. Only two specimens of this, elsewhere a rather common shell, have been as yet collected in the Moray Firth; one by Mr. Duff, now in the Elgin Museum, and the other by Mr. Martin. To the denizenship of this species the same doubt must be attached as noticed in reference to *Murex erinaceus*.

Black-spot Nassa, *Nassa incrassata*. Abundant among shell-sand; and often to be met alive adhering to sea-weed, &c. Mr. Macdonald has found it in the stomach of *Solaster papposa*.

Waved Buccine, *Buccinum undatum*, (also *B. carinatum*, Flem. and *B. Anglicanum*, Flem. and Mac.) Abundantly cast up on the beach; and frequently taken up by the fishing lines, whether inhabited by its original occupant or by the hermit crab. Mr. Murray mentions that in both these states it is found among the rocks at Burghead. This and the larger species of *Fusus* get the provincial name of "roaring buckies."

Islandic Spindle-Shell, *Fusus Islandicus*, (*F. corneus*, Flem. and Mac.) Frequent.

Symmetrical Spindle-Shell, *Fusus propinquus*. A few very young specimens were taken from fish killed in the Moray Firth; but a full-sized and complete one, though long looked for along the coast, was not met with until the 26th of October, 1853, when it was by the merest chance seen among a parcel of shells scattered about as nursery playthings, but which had been gathered by children and brought by them from their sea-bathing quarters at Lossiemouth the previous August. It is now in the Elgin Museum.

Common White Spindle-Shell, *Fusus antiquus*. Very common.

Banff Trophon, *Trophon clathratus*, (*Fusus Bamfius*, Flem., *Pleurotoma Banffium*, Mac.) Three specimens have been obtained by Mr. Murray, at Burghead; it has also, but rarely, been seen among shell-sand.

Turretted Mangelia, *Mangelia turricula*, (*Fusus turricula*, Flem., *Pleurotoma turricula*, Mac.) Met with by Mr. Macdonald while dredging off Lossiemouth.

Trevelyan's Mangelia, *Mangelia Trevelliana*, (*Pleurotoma sinuosa*, Flem.; *Pleurotoma reticulatum*, Mac.) Two specimens have been obtained by Mr. Murray at Burghead.

Lineated Mangelia, *Mangelia linearis*, (*Pleurotoma linearis*, Flem., *Fusus Buchanensis*, Macq.) This species occurs in the Moray Firth more frequently than any other of the genus. It seems to be the resort of small hermit crabs, and then is picked up by the haddock.

Brown or Clouded Mangelia, *Mangelia nebula*, (*Fusus nebula*, Flem.) One specimen has been found by Mr. Murray at Burghead, and two or three got in the stomachs of fish.

Short-mouthed Mangelia, *Mangelia brachystoma*. A few specimens have been obtained from fish killed in the Moray Firth.

Strong-ribbed Mangelia, *Mangelia costata*, (*Fusus costatus*, Flem.) A single specimen, dredged in the Firth by Mr. Macdonald, is now in the Elgin Museum.

European Cowrie, *Cypræa Europea*. Well known to, and eagerly searched for on the shingly sea-shore, by young conchologists, under the provincial name of "John o' Groat's buckies." Most abundant, 1826, on the shores of the Pentland Firth, near the reputed site where that famous Knight of the Round Table built his house.

Smooth Marginella, *Marginella lævis*, (*M. voluta* and *Voluta fusiformis*, Flem.) Here, as in many other instances, Mr. Murray has the merit of adding a beautiful species to the list of Moray shells. He found this pretty little gem in a boat, among the débris cast off from the lines of a Burghead fisherman who had just returned from the fishing-ground. But one specimen, generously presented to the Elgin Museum, has as yet (November, 1853) been met with in the Firth.

Gasteropoda Opisthobranchiata.

Cylindric Cylichna, *Cylichna cylindracea*, (*Bulla cylindracea*, Flem., *Bullina cylindracea*, Mac.) Occasionally met with in shell-sand; more frequently in the stomach of the haddock; and sometimes to be picked off from the fishing-lines at the different stations on the Firth.

Truncated Cylichna, *Cylichna truncata*, (*Bullina truncata*, Flem.,

Bullina truncata and *B. pellucida*, Macq.) Frequent in shell-sand. Common, alive, between tide-marks at Burghead, Mr. Macdonald.

Oblong Cylichna, *Cylichna umbilicata*, (*Bulla umbilicata*, Flem.; *Bullina umbilicata*, Mac.) In shell-sand, but more rarely than the preceding species.

Transparent Amphisphyra, *Amphisphyra hyalina*, (*Bulla minuta*, Mac.) First discovered in the Moray Firth by Mr. Murray at Burghead, where it occurs occasionally in shell-sand.

Banded Tornatella, *Tornatella fasciata*, (*T. tornalis*, Flem., and *T. tornalis*, *T. pellucida* and *T. pusilla*, Mac.) Occasionally to be picked up on the shore. It is preyed on by the haddock.

Bulla-like Akeria, *Akeria bullata*, (*Bulla Akeria*, Flem.) "The Rev. Charles Cordiner, of Banff, observed this shell in the Moray Firth, and transmitted specimens to the Duchess of Portland," Fleming, *British Animals*, p. 292.

Cranch's Bulla, *Bulla Cranchii*. Frequently to be seen in the stomach of the haddock. Mr. Murray finds it at Burghead.

Wood-tinted Scaphander, *Scaphander lignarius*, (*Bulla lignarius*, Flem.) Not unfrequently found as part of the food of the haddock; the specimens seem smaller than those found on the West coast of Scotland.

Rough Philine, *Philine scabra*, (*Bullæa catenulifera*, Mac.) Occasionally found in shell-sand, but more frequently as part of the food of the haddock.

Punctated Philine, *Philine punctata*, (*Bullæa punctata*, Mac. One specimen, alive, has just been found (July, 1854) by Mr. Murray at Burghead, near low-water mark. "Off Trouphead, Aberdeenshire, in sixty fathoms (Thomas)," F. & H. These two facts show the great range as to the depth in which this rare species may be found. Both *Philine quadrata* and *P. pruinosa* have been met with on the North of the Moray Firth, at "Zetland," and also on the South—the former on the "Northumberland coast," and the latter in the "Firth of Forth."

The Sea-Hare, *Aplysia hybrida*, (*A. dipilans* and *A. punctata*, Flem.) Frequently to be met with. On one occasion Mr. Martin observed immense numbers drifted on the shore, along with sea-weed, to the west of Burghead. "Very abundant on the rocks at Burghead, in July, 1852," Mr. Macdonald.

In the Appendix II. to the 'History of British Mollusca,' p. 290, it is stated that *Diphyllidia lineata* has been found "off the Shetland Islands," and "from the boats at Whitburn, in the county of Durham."

The following list of a beautiful tribe of Mollusks (*Gasteropoda Nudibranchiata*), with remarks upon the different species, has been kindly supplied by Mr. George Murray, whose name has already often occurred in this paper.

Doris tuberculata, (*D. argo*, Flem.) Frequent at Burghead, between tide-marks, where the practised eye will seldom fail to detach it either in rock-crevices or beneath large stones.

Doris Johnstoni. At Burghead, in the same situation as the preceding; not common.

Doris aspera. Common among the rocks at Burghead, where it is found most abundantly during the greatest spring-tides. When these occur their recess lays bare a portion of the rocky beach thickly strewn with stones of all sizes, which are covered with sea-weeds and zoophytes, and are protected from the violent action of the surf by an outer ledge of rock accessible only at such periods, though its top rises considerably above the water during ordinary tides. The space thus imperfectly described constitutes a sort of intermediate territory between the littoral and laminarian zones. In this highly favourable locality, so abundant are the animals of the Nudibranchiate order that a single tide has often sufficed to put the collector in possession of hundreds of individuals, some of which are seldom found except in deep water. Here *D. aspera* especially abounds.

Doris bilamellata. Common between tide-marks at Burghead. This species appears to be somewhat gregarious in its habits, occurring generally in clusters. Not unfrequently a dozen or more have been found on the same stone.

Doris pusilla. The authors of the Monograph on the Nudibranchiate Mollusks, published by the Ray Society,—a work that can never be referred to without the highest admiration,—state regarding this species that the two individuals forming the subject of their description were found “under stones at low-water mark, Torquay.” In a similar situation two were discovered at Burghead, in May, 1853, and another in the following September. Ranging therefore from Devonshire in England to the “Devonshire of Scotland,” as Moray land has sometimes been styled, its distribution is pretty extensive. It does not indeed appear to have yet been met with in any intermediate locality, a circumstance perhaps less owing to its rarity than to its minute size and consequent difficulty of detection, together with the paucity of observers interested in its class. When the latter obstacle is removed—and it is cheering to note among

other "signs of the times" that its days are already numbered—this, and other species at present accounted local, will probably be stripped of that character, and invested with one of greater dignity and importance.

Doris depressa. This species, it is stated in the Monograph, is "generally found adhering to a species of *Lepralia*, incrusting the under surface of stones in pools near low-water mark, and so nearly resembles the zoophyte in colour as not to be detected without the closest inspection, in support of which statement the discovery at Burghead of one individual in 1853, and another in September following, both in the precise situation above described, is now gladly adduced. It may further be remarked of this and the preceding species, though the remark is by no means confined to them, that the most thorough accordance was found to exist between the character of the Burghead individuals and that of the species as described and figured in the Monograph, attesting alike the accuracy of that work, and the permanent character of these species under the modified circumstances necessarily attending so wide a difference of locality.

Doris pilosa, (*D. nigricans*, Flem.) Not rare among the rocks at Burghead. It has been met with above half-tide level, but more frequently in the border land between the littoral and laminarian zones already described. In evidence of its "Protean character" (Mon. Nudib. Moll.), it has been found here in all its known varieties,—white, black, light yellow, and tawny.

Goniodoris nodosa, (*D. nodosa*, Flem.) Common at Burghead between tide-marks. The variations mentioned in the Monograph as having been made by some naturalists the ground of specific distinctions have been observed here, but, considerable though they certainly are, they do not seem to merit the importance thus attached to them.

Triopa claviger. Of this fine species only three individuals have been found at Burghead; one in June, 1853, and two in the following September. It must therefore be considered rare, at least between tide-marks, where the above specimens were found at extreme low-water.

Ægiris punctilucens. Not uncommon at Burghead among the rocks, and most frequent in the vicinity of low-water mark. It has generally been found in small hollows, on the under surface of stones. Somewhat difficult to detect on account of its prevailing tint, and to the naked eye peculiarly uninviting, at least in the rather stunted

form which, with one exception, has characterized the specimens found in this locality: there is no animal of its tribe that will more amply reward the search of the curious, by the unexpected and marvellous beauty of the gem-like spots on its body, when these are brought to view under a Codington lens.

Polycera quadrilineata, (*P. flava*, Flem.) At Burghead; rather rare. Of the few specimens of this attractive creature found here one proved to be the very beautiful black and orange-scarlet banded variety. It was a full-sized specimen, and was found among sea-weeds in a rock pool towards high-water mark. The branchial lobes, even when the animal was newly captured and apparently in vigorous health, were found blunt at the point and inflated, so that other causes besides "a sickly state" (Mon. Nudib. Moll.) would seem to have the effect of inducing this circumstance.

Polycera ocellata. One individual found at Burghead, between tide-marks, in July, 1853.

Polycera Lessonii. A single individual recognized by Mr. Hancock as belonging to this species, was met with in March last, at half-tide level, among the rocks at Burghead.

Ancula cristata. Apparently rare at Burghead, a few individuals only having been found between tide-marks.

Tritonia Hombergii. Two specimens were taken by the Rev. G. Gordon from the stomach of a cod caught in the Frith, some years ago.

Tritonia plebeia. A single specimen was found at Burghead, under a large stone, at low water of a spring tide.

Dendronotus arborescens (*Tritonia arborescens*, Flem. and Mac.) Rather rare at Burghead, where it has occasionally been found in its fully developed state between tide-marks. When this beautiful animal is seen gracefully reposing among the branches of a sea-weed or coralline, no great stretch of fancy is required to imagine it a stately fallow-deer with more than royal antlers couching amid a thicket of ferns. A miniature Dr. Syntax, paying a visit to the laminarian zone and encountering such a tableau in his travels, would certainly be arrested by it as a charming example of the picturesque.

Doto coronata (*Tritonia pinnatifida*, Flem.) Burghead; common among corallines on stones at low-water mark. In all its varieties this little animal is exquisitely beautiful.

Eolis papillosa, (*E. papillosa* and *Lesliana*, Mac.) Not uncommon under stones between tide-marks at Burghead.

Eolis coronata. Very common at Burghead between tide-marks.

On account of its remarkable voracity and addiction to slaughter, this species may be termed the tiger of its tribe,—an appellation, however, which will scarcely suggest its surpassing beauty.

Eolis rufibranchialis. Rocks at Burghead, about low-water mark of spring tides; not rare.

Eolis alba. Two specimens have been found at Burghead by Mr. Macdonald; one in July, 1853, and the other in the same month of the present year; the former near high-water mark, and the latter about low-water mark.

Eolis Landsburgii. An individual of this rare species was found in June, 1853, on a stone between tide-marks at Burghead. Mr. Hancock, to whom the animal was sent, thus writes regarding it:—"This is undoubtedly *E. Landsburgii*, and, though not quite full grown, is much better developed than the individual from which the figures in the Monograph were made." These figures are, however, very accurate and characteristic of the species.

Eolis smaragdina. At Burghead between tide-marks; rare.

Eolis angulata. In 18— Mr. Macdonald found an individual of this species on a shell sent from Buckie, where it had doubtless been brought up from deep water.

Eolis nana. An individual of this species was found at Burghead, near high-water mark, May, 1853. In confinement it manifested all the activity and restlessness ascribed to it by the authors of the Monograph.

Eolis olivacea. At Burghead between tide-marks; not rare.

Eolis viridis. Not uncommon at Burghead about low-water mark.

Eolis picta. At Burghead between tide-marks; rare.

Eolis tricolor. Frequent at Burghead about the upper margin of the laminarian zone. Its habit, originally noted by Professor E. Forbes, of rolling itself up into a ball when teased, is certainly a decided feature of the animal.

Eolis Farrani. Rather common in the same situation as the preceding, at Burghead, where it has made its first appearance on the stage of British science in quite a new style of character, namely, with a development—in regard principally to colouring, but also in some degree to size—so superior to that represented in the Monograph as to give it, to the uninitiated eye, the appearance of a distinct species. As such, in fact, it was regarded here, till the illusion was dispelled by Mr. Hancock in lately receiving some specimens. Its newly-discovered features being about, we understand, to receive publicity in the concluding portion of the Monograph, any attempt at

description on our part is uncalled for, and would here be out of place.

Cenia Cocksii. A single specimen of this rare species of the Pelibranchiate order was found at Burghead near low-water mark.

GEORGE GORDON.

Birnie, by Elgin, July, 1854.

(To be continued).

Some American Snails naturalized in Yorkshire.—Some three or four years ago I procured a great number of living Mollusca (apparently several species of *Helix*) from a vessel recently arrived with cattle-bone from Buenos Ayres and Monte Video, in the cargo of which they abounded. These were turned out in the garden to take care of themselves, and now while I write a great number of them are still alive and apparently healthy. It is a fact worthy of note to know that coming from a semitropical country they have been able to withstand the region of our climate. The past winter would be a severe trial to them, the temperature on one occasion falling even so low as 3° below zero of Fahrenheit.—*G. Norman; Hull, August 4, 1854.*

Note on Zygæna Minos.—So little is yet known respecting the new *Zygæna* in Britain, that it is hoped a few remarks made in a second Irish locality will not be uninteresting. In this neighbourhood I first noticed *Zygæna Minos* in the summer of 1851, but unfortunately then referred it to what is described as a suffused variety of *Z. Filipendulæ*, a mistake which may possibly have occurred to other collectors in England. The insect here appears about the first week in June, a fortnight earlier than *Z. Filipendulæ*, and is in perfection by the middle of the month: it then swarms on many parts of the rock-strewn pasture so characteristic of the mountain limestone district of the West of Ireland, where the stones frequently occupy the ground almost to the exclusion of vegetation. I have not yet succeeded in ascertaining its food, but, from the abundance in its haunts of *Lotus corniculatus* and *Anthyllis vulneraria*, it seems very possible that either or both of these constitute its diet. Some eggs laid on the 15th of June were hatched a few days ago, but I fear I shall not be able to rear the larvæ, through their refusing to eat. As regards the distribution of *Zygæna Minos* in Ireland, it occurs all round Castle Taylor, and I have also traced it within the limits of the county Galway as far as Garryland, eight miles south of this, and Tyrone, near Kilcolgan, four miles to the north-west: it is more particularly abundant towards the sea. From the prevalence in its favourite localities of certain plants,—such as *Gentiana verna*, *Dryas octopetala*, *Sesleria cærulea*, *Arbutus Uva-ursi*, &c., which are I believe common to a rather extensive tract in these parts, and especially characteristic of the Burrin mountains in Clare, where the insect was first taken by

Mr. H. Milner,—it seems probable that *Zygæna Minos* has also an extensive range through the district inhabited by these alpine plants, that is, in this county as far north as Galway and throughout the limestone district of the north of Clare: how far it may reach inland remains to be ascertained. An insect, too, which inhabits Germany, Switzerland and France, can hardly be expected to remain long peculiar to Ireland only of the British Isles, whether we look to Teesdale, from its botanical similarity, or to the Southern and Western counties for its occurrence in England.—*A. G. More; Castle Taylor, Ardahan, Ireland, July 15, 1854.*

Captures in Sutherlandshire.—As some of the readers of the 'Zoologist,' may like to know the result of a month's collecting in Sutherlandshire, I enclose a list of my captures. The locality in which I collected was about two miles in length, between Shin Bridge and Achany, and consisted chiefly of a birch wood, with a few alders and white poplars, and thick heather below. The whole of May was most unfavorable for collecting, as cold cloudy weather, with incessant wind all day, prevailed throughout the month. My primary object was salmon-fishing, but as I was out early and late I worked the place fairly. I have little doubt that any entomologist who would examine the mountainous part of Sutherlandshire would be well repaid for his journey. In *birds*, there was nothing particular to be noted. The woodcocks were very abundant, and flew round the woods regularly at dusk; but they appeared to have hatched their young very early, as, although I saw very many young birds, I did not meet with any unable to fly. There were several pairs of the red-breasted merganser flying up and down the river all day, but I did not succeed in finding any of their nests. The following is a list of the insects taken by me:—

Sesia bombylifomis.

Phragmatobia fuliginosa. Abundant both as larva and imago.

Orgyia fascelina. Larva abundant.

—— *Coryli.*

Lasiocampa Quercus. Larva on heath.

Odonestis potatoria. Larva.

Platypteryx lacertula. Very common on birch trees.

—— *falcula.* One specimen.

Cerura vinula. Very abundant.

Ceropacha duplaris. Larva.

Hadena adusta. Common on sugar.

—— *rectilinea.* Common on sugar, as early as May 22.

—— *glaucæ.* Common on sugar, and on willow-bloom.

Scopula ———. One specimen, very near *S. decrepitalis*, but Mr. Doubleday considers it a distinct species.

Mæsia favillacearia.

Tephrosia laticaria. Common.

Phæsyale psittacaria and *miaria.* On willow-bloom.

Lobophora lobularia. Abundant on willows.

—— *hexapteraria.* Abundant on white poplar.

Ephyra pendularia. Abundant on birch.

Eupithecia Callunaria. Abundant on heath.

Peronea Lipsiana. On willows; mostly worn specimens.

—— *ferrugana.*

Penthina prælongana.

Cnephasia lepidana and *masculana*. Very abundant everywhere.

Phoxopteryx unguicana.

———— *biarcuana*. On heather.

———— *Myrtillana*.

———— *lundana*.

———— *ramana*. Abundant on white poplar.

Coccyx argyrana.

Eupæcilia ruficiliana.

Semioscopis Steinkellneriana.

Incurvaria Ehlmanniella.

———— *Zinckenii*. Abundant on birch.

Lampronia prælatella.

Swammerdamia cæsiella.

Micropteryx Calthella and *Allionella*.

———— *Sparmannella*. On birch.

Nemophora Swammerdammellus and *sericinellus*.

Adela cuprella. On willow. Only one specimen this year, but abundant last year.

Gelechia proximella. Very common.

———— *longicornis*. May 10th.

Röslerstammia pronubella. New to Britain.

Gracilaria semifascia and *elongella*.

Ornix Loganella.

Chrysocorys festaliella.

Bucculatrix Demaryella. Flying.

Lithocolletis Caledoniella. Flying.

Pterophorus acanthodactylus. On heath.

Besides these, I took *Pyrochroa pectinicornis*, a species new to Britain, as Mr. S. Stevens informs me; a *Geometra*, allied to *rubidaria*; and two Tortrices, which Mr. Doubleday has not yet decided upon.—*E. C. Buxton; Adlington Hall, Chorley, July 6, 1854.*

Captures in Leicestershire.—*Trachodes hispidus*. I have much pleasure in announcing the occurrence of this rare *Curculio** in this county, four specimens of which were taken by Mr. F. Plant, on June 18th, in a wood a few miles distant from this town. On July 16th it again occurred, both to Mr. Plant and myself: altogether thirteen specimens have been captured by us. As the only two specimens previously found in Britain were taken some nine or ten years ago, the present capture bears the merit of a *rediscovery*.

Cyphon chrysomeloides. A single specimen of this species was taken from an oak tree, in June, by Mr. F. Plant.

Attelabus curculionoides. Sparingly, on oaks, in June and July.

Silpha quadripunctata. Sparingly, on oaks, in June and July.

Clythra quadripunctata. Sparingly, on oaks, in June and July.

Rhynchites pubescens. A few specimens from the hazel, June and July.

Brachytarsus varius. Ten or a dozen specimens of this rare *Curculio* have

* Described by J. Walton, Esq., in the 'Annals and Magazine of Natural History,' vol. ix. 2nd series, p. 204.

occurred in woods and on trees in their vicinity: they have been taken from the elm, the hazel, and by general sweeping in oak woods; June and July.

Elater balteatus. Four specimens, taken by Mr. Plant, from an old oak-stump, in June.

Elater bipustulatus. Three specimens, taken by myself, by sweeping in oak woods; July. This is the first time this species has occurred in this county.

Orobitis cyaneus. Plentiful in certain localities, by sweeping beneath oaks; June and July.

Agrilus viridis. Abundant in oak woods, in July.

Cryptocephalus minutus? and *labiatus*. Abundant in oak woods, in July.

Auchenia quadrimaculata. Locally abundant in damp parts of woods, on *Lysimachia nemorum*; July.

Leiodes humeralis. Sparingly, in damp woods, in July.

Amphicyllis globus (*Agathidium globus*, *Steph. Man.*) Sparingly, in damp woods, in July.

Haltica nitidula. Not uncommon on young aspens, in woods; June and October.

Haltica vittata (*Mus. Steph.*) Common on *Cardamine amara*; damp places in woods; May.

Lina ænea (*Melasoma ænea*, *Steph. Man.*) Common on young alders, in woods; June and September.

Donacia nigra and *Menyanthidis*. Locally abundant, on a species of grass? growing on the margins of ponds and rivers, in June. They secrete themselves at the base of the leaf where it enfolds the stem, a secure retreat from all but the prying eyes of their greatest enemy, the entomologist.—*Frederick Bates*; 5, *Napier Terrace, Aylestone Road, Leicester*, July 19, 1854.

Correction of an Error.—At page 4129 of the 'Zoologist,' I mentioned *Hydrilla caliginosa* as occurring on the heaths here; but having since ascertained that I had mistaken another species for *caliginosa*, I think it but fair to the Entomological world that the mistake should be corrected as publicly as made.—*Octavius Pickard-Cambridge*.

Note on the Barn Owl.—I heard to-day an anecdote respecting the barn owl which I think worth inserting in the 'Zoologist.' About fifty years ago a labouring man in a parish in this neighbourhood took a pair of young barn owls from their nest in a plantation, and brought them to a hollow elm tree which stood close to an adjacent farm-house: to this tree the young owls were tied by their legs for a time, and, on being subsequently released from this confinement, they took up their abode in the hollow trunk of the tree, which, from that day to this, has never been without a pair of barn owls for its tenants,—whether the original pair or their successors I am unable to say, but undoubtedly either the one or the other. Some years since, that part of the tree which the owls usually inhabited was blown down, and they seem to have felt no little reluctance in changing their domicile to another portion of it, as they were observed to keep possession of the fallen part of the tree most pertinaciously during the first night after the accident. Cats are well known to have very strong local predilec-

tions, and this anecdote makes it probable that the most cat-like of all birds, the owl, possesses a similar propensity.—*J. H. Gurney, Catton, Norfolk, August 8, 1854.*

Parrots at large in Norfolk.—In a wood in the neighbourhood of Cromer, in Norfolk, there are now living at large thirteen American parrots, two of the Amazon and eleven of the Carolina breed (both kinds are green, the former with a yellow crest). They are entirely at liberty, living upon the trees, but descending at regular hours to be fed, much in the same way as pigeons. They are hardy, do not appear to mind rain or wind, and have greatly improved in health and vigour and in beauty of plumage since they were set at liberty. One of the Amazon parrots has been enjoying its freedom for several years past, and the other for more than a year. In the autumn they feed themselves entirely on beech-nuts and acorns: last year these two did not return to the house for food or shelter for fourteen weeks, from the middle of August till the end of November, seldom, however, flying so far as a quarter of a mile from home, and generally answering when called. When the supply of beech-nuts and acorns at last failed they returned to the house to be fed, and as the weather became colder they generally spent the night in-doors, always—even in the great cold and heavy snow of last January in Norfolk—flying out for a part, at least, of the day. At the present time of year they remain wholly out of doors, but come to the window once a day to be fed, or fly down to any one sitting under the trees who will give them a piece of bread. They are perfectly tame and sociable, having always been allowed to come and go as they like, and will fly through the open window to the breakfast table, and out again when satisfied, without the least appearance of distrust. The Carolina parrots have been only lately turned out. Some pains were required, in the first instance, to teach them to come down for food, for they would not, as had been expected, consort with the Amazons, who, indeed, appear to despise the smaller Carolina race. However, by tying the wings of some of them and letting them out gradually, in about a week they were all at liberty, and had all learned where food was to be found. They are strong and active, flying round and round the place towards evening, sometimes over the trees and sometimes along the surface of the ground, with an occasional harsh cry, displaying very prettily their green backs and their long blue wings. They are greatly attached to the gardener who has the charge of them, and fly down from the trees to meet him as soon as he appears with their supper, perching on his head and shoulders, or upon the basin of bread and milk which he is carrying. During the autumn they will probably live on beech-nuts, but in the winter will require food, by which they will be induced to return at night into a small green-house, where they will find warmth and shelter whenever they like to avail themselves of it. If it were generally known how hardy, and at the same time how easily tamed, are both parrots and cockatoos, it is possible that these active and lively birds would be less frequently restricted to the irksome confinement of a small cage, but would be allowed the extreme enjoyment which they find in liberty and in the exercise of their natural habits.—*Communicated by Thomas Fowell Buxton, Esq., of Leytonstone.*

Occurrence of the Rose-coloured Pastor (Pastor roseus) near Dublin.—A fine adult male specimen of the rose-coloured pastor was killed near Dublin on the 20th of July. The man who shot it said there were three or four more in company with it.—*L. H. Irby; Dublin, August 9, 1854.*

Occurrence of the Rose-coloured Pastor in the Isle of Cumbrae.—The day before yesterday the footman rushed into the room to announce a “*rara avis in hortis.*” On

hastening out I was informed that the bird, which was of "the size and appearance of a blackbird, only with a white breast and back," had flown off. After waiting a short time, however, the stranger reappeared in the shape of *Pastor roseus*: it was being tormented by a flock of sparrows and yellowhammers, who seemed to regard him somewhat in the same light as we should his fellow-countryman a Zulu Kaffir. A gun was quickly procured, and the bird shot. I believe it to be of extreme rarity in Scotland. Yarrell (the only authority I have here with me) only mentions three instances of its appearance.—*Alfred Merle Norman; Isle of Cumbrae, August 7, 1854.*

Note on the occurrence of the Gray-headed Wagtail (Motacilla flava) at Lowestoft.—Mr. Thurtell, an intelligent bird-stuffer at Lowestoft (on whose observations I have full dependance), has sent me the following note on the above subject, which I have pleasure in forwarding for insertion in the 'Zoologist.'—"During the protracted dry weather from the beginning of last March to the end of April we had the wind from the North-east, with light sunny days, and every day for more than six weeks there were to be seen some forty or fifty yellow wagtails running upon our denes, and on the 24th of April I observed a gray-headed one amongst them. I fetched my gun and shot it. On the 25th I killed two more, and on the 26th I killed one. These four were all males; besides which I shot, on the 26th, two females.—*J. H. Gurney; Catton, Norfolk, July 24, 1854.*

Peculiarities of Grouse.—A correspondent in the neighbourhood of Carr-Bridge says, he noticed the other day a remarkable instance of that wonderful instinct which, even in the most timid of the feathered race, is sometimes found to inspire a courage almost supernatural in defence of offspring. As Mr. S. W. Hurrell was crossing the hill between Carr-Bridge and the Spey, on a fishing excursion, with some of his dogs following, one of them pointed, when a gray hen offered to do battle in defence of her brood, and flap, flapping her wings like fanners, Gallina, with heroic bravery, actually beat her canine antagonist, and, to the no small wonder of the party, drove him crest-fallen away. Another instance of the singular force of the same natural instinct may be mentioned. Mr. Bass, M.P., and his friends, who have taken the shootings around Carr-Bridge, are in the habit of giving presents to the herd-boys in the districts, in order to engage them, *bonâ fide*, to preserve the nests, and, if possible, guard them against external violence. One of the keepers lately accosted one of these herd-boys, and, in answer to several queries on the subject of nests, was told by the boy, that, in guarding the game from molestation, he had no difficulty except with one nest, which was situated in a place much frequented by the cattle, and which, he said, must have been destroyed unless by some means protected. 'But,' continued the boy, 'I have built a little house of stones and turf about it, and that will prevent the cattle from getting at it.' 'But,' replied the astonished keeper, 'you will certainly scare away the bird.' 'O no,' rejoined the boy, 'I have left a little door for the hen to get in and out at, and she sits on the eggs as usual.' The keeper, on visiting the place, actually found this to be the case; and several persons, attracted by curiosity, have seen the same singular phenomenon.—*Communicated by J. Gratton, Esq.*

Tufted Duck breeding at Osberton.—I beg to send, for insertion in the 'Zoologist,' the following interesting account of the discovery of the nest of a tufted duck at Osberton, in Nottinghamshire, by my nephew Francis Foljambe, Esq., this summer, and I cannot do better than quote his own words.—"On Tuesday, June 13th, 1854, I was informed by the keeper that he had discovered the nest of a pair of tufted ducks that

had been observed on the water at Osberton during the whole spring. I accordingly visited the spot and disturbed the female bird, who was then beginning to sit. The nest was formed of flags twined together like a waterhen's, but arched over, with the flags more open. There were seven or eight eggs lying in a little down, but I think the nest was not so thickly lined as a common wild duck's. I took three eggs from the nest, which were of a light olive-brown colour, and about the size of the widgeon's. When I returned home, after a short absence, I found the nest totally destroyed and the eggs gone. I had observed tufted ducks in pairs on the waters in the neighbourhood of Osberton as late as June 21, last year (1853), and felt certain they bred there then. The nest was close to the house, and within a stone's throw of the drawing-room window." I believe this interesting account of the tufted duck's breeding in this country is the first on record, though from the circumstance of their remaining with the pochard, which breeds in considerable numbers on Hornsea Mere, in Yorkshire, during the summer, I have no doubt that their nests might be found there.—*W. M. E. Milner*; 75, *Eaton Place*, August, 1854.

Red-necked Phalarope killed near York.—A very fine specimen of the red-necked phalarope, in full summer plumage, was killed a few miles from York in May of this year, and was brought to Mr. Graham, bird-stuffer, by whom it has been set up, and is now in my collection.—*Id.*

Singular Hatch of Ducklings.—A neighbour of mine, a good housewife, sat a hen upon duck's eggs: in due time the hen brought off seven ducklings. There was nothing very unusual in this, but, strange to say, not one of them could stand, and they all came forth from their shells sprawling on their backs, with their flabby paws in the air, making, in their efforts to gain their natural position, a most ludicrous appearance. The parent bird and the good housewife made many attempts to help them on their legs and keep them there; but, as soon as their assistance was withdrawn, they instantly fell on their backs again. As may be concluded, they could not live long in such a state, and, after remaining in this strange position for about five hours, they all died. Can any of your ingenious correspondents explain this singular ornithological problem?—*R. Wakefield*; *Sussex Place*, May 29, 1854.

Birds shot in Egypt.—The following is a list of birds which were shot in Egypt, between Alexandria and the first cataract of the Nile, during the months of November, December and January last, by myself and three friends. I have preserved specimens of most of them. With regard to the Egyptian vulture, which is generally figured and described as having yellow legs, I beg to observe that in the very numerous specimens which came under my notice, recently killed, and in every stage of transition from brown to white, the legs and feet were invariably pale flesh-colour, tinged with brown in the immature birds.

RAPTORES.

Griffon Vulture, *Gyps fulvus*.
 Egyptian Vulture, *Neophron percnopterus*.
 Imperial Eagle, *Aquila Mogilnik*.
 Spotted Eagle, *Aquila naevia*.
 Booted Eagle, *Aquila pennata*.
 Long-legged Buzzard, *Buteo rufinus*,
 (Rüppell).
 Lanner Falcon, *Falco Lanarius*.

Peregrine Falcon, *Falco peregrinus*.
 Double-bearded Falcon, *Falco cervicalis*.
 Merlin, *Falco aesalon*.
 Kestrel, *Falco tinnunculus*.
 Sparrow-hawk, *Accipiter nisus*.
 Arabian Kite, *Milvus Aegyptius*.
 Black-winged Kite, *Elanus melanopterus*.
 Marsh Harrier, *Circus rufus*.

Hen Harrier, *Circus cyaneus*.
 Montagu's Harrier, *Circus cineraceus*.
 White Owl, *Strix flammea*.

Egyptian Horned Owl, *Bubo Ascalaphus*.
 Little Owl, *Noctua nudipes*.

INSESSORES.

Gray Shrike, *Lanius excubitor*.
 Blue Rock-Thrush, *Petrocincla cyanea*.
 Black Wheatear, *Saxicola cachinnans*,
 (Gould).
 Russet Wheatear, *Saxicola Stipazina*,
 (Gould).
 White Wagtail, *Motacilla alba*.
 White-winged Wagtail, *Motacilla lugubris*.
 Gray-headed Wagtail, *Motacilla neglecta*.
 Crested Lark, *Alauda cristata*.
 Hooded Crow, *Corvus cornix*.
 Starling, *Sturnus vulgaris*.
 Tree Sparrow, *Passer montanus*.
 Common Sparrow, *Passer domesticus*.

Vinous Grosbeak, *Erythropsiza githaginea*,
 (Gould).
 Hoopoe, *Upupa epops*.
 Crag Swallow, *Cotyle rupestris*.
 Common Swallow, *Hirundo rustica*.
 Swift, *Cypselus apus*.
 Isabella Goatsucker, *Caprimulgus isabel-*
linus.
 Black and white Kingfisher, *Ceryle rudis*.
 Egyptian Bee-eater, *Merops Egyptius*.
 Great Spotted Cuckoo, *Cuculus glandarius*.
 Straight-heeled Coucal, *Centropus Sene-*
galensis.

RASORES.

Gray-backed Pigeon, *Columba intermedia*.
 Cambaian Turtle, *Turtur cambaiensis*.
 Singed Sand Grouse, *Pterocles exustus*.

Senegal Land Grouse, *Pterocles senegal-*
ensis.
 Quail, *Coturnix vulgaris*.

GRALLATORES.

Common Heron, *Ardea cinerea*.
 Buff-backed Heron, *Ardea russata*.
 Night Heron, *Nycticorax Europeus*.
 White Stork, *Ciconia alba*.
 Spoonbill, *Platalea leucorodia*.
 Norfolk Plover, *Ædicnemus crepitans*.
 Spur-winged Plover, *Hoplopterus spinosus*.
 Black-headed Plover, *Pluvianus Egyptius*.
 Little Ringed Plover, *Charadrius minor*.
 Lapwing, *Vanellus cristatus*.
 White-tailed Plover, *Vanellus leucurus*.
 Common Curlew, *Numenius arquata*.

Black-winged Stilt, *Himantopus mela-*
nopterus.
 Green Sandpiper, *Totanus ochropus*.
 Common Sandpiper, *Totanus hypoleucos*.
 Marsh Sandpiper, *Totanus stagnatilis*,
 (Gould).
 Greenshank, *Totanus glottis*.
 Common Snipe, *Scolopax gallinago*.
 Jack Snipe, *Scolopax gallinula*.
 Short-winged painted Snipe, *Rhynchæa*
bengalensis.

NATATORES.

White-fronted Goose, *Anser albifrons*.
 Egyptian Goose, *Anser Egyptius*.
 Shoveller Duck, *Anas clypeata*.
 Mallard, *Anas boschas*.
 Pintail Duck, *Anas acuta*.

Teal, *Anas crecca*.
 Cormorant, *Carbo cormoranus*.
 Gull-billed Tern, *Sterna anglica*.
 Small Gull.

*Birds seen by myself, but not obtained.*Osprey, *Pandion haliaetus*.Black Stork, *Ciconia nigra*.Raven, *Corvus Corax*.Pelican, *Pelecanus onocrotalus*.Common Kingfisher, *Alcedo ispida*.

Large Gull.

Common Crane, *Grus cinerea*.

—E. C. Taylor; Chicknell, Bridgenorth, Salop, July 23, 1854.

The Lesser Weever (*Trachinus vipera*).—The perusal of an interesting note (Zool. 3260) by the Rev. George Harris, upon the weevers, reminds me of a circumstance which occurred within my own knowledge. A few years ago, when spending a week in the South of England with a party of friends, we were invited by a gentleman to have a sail in his yacht for Calais. We were leaving the harbour of that place, upon our return home, when one of the seamen who handled the vessel, having been paddling in the water with bare feet, put one of them upon what he called a “sting-fish,” and which, judging from all the circumstances, I have no doubt was the lesser weever. His leg became painful, and in the course of a few hours much swelled and inflamed, and upon reaching England he was obliged to desist from following his nautical duties. By the aid of medical treatment the inflammation gradually abated, but many weeks elapsed before he was able to resume his usual occupation.—*John Joseph Briggs; King's Newton, Derbyshire, July, 1854.*

Things hoped for. By JOHN SCOTT, Esq.

“Are these things then necessities?”

Then let us meet them like necessities:—

And that same word even now cries out on us.”

Shakspeare, Henry IV. Part 2.

“TIME and the hour runs through the roughest day,” and our father’s weary limbs refuse to bear them further. They are saying to us, ‘These works which we are about to leave behind us, have been designed for your benefit, making the way much easier for you than when we first set out on our journey. Walk steadily in the same path; imitate our example, and hope for excellence; amend what you may prove to be in error, and cherish such as is without fault.’ Time and the hour are doing for us what our fathers now feel. We are fast slipping into the “sere and yellow leaf.” It is coming upon us with thief-like footsteps, and shortly the account of the stewardship will be called for. Undoubtedly their places ought to be

supplied from amongst us, but who is there amongst us able to supply them, when they shall be hid from our sight for ever? Truly it is a question which ought to touch us deeply, and make us think a little less of ourselves than we have been in the habit of doing. Many of us are yet but very infants in the science. We have collected together a great many species, and made it our boast that such and such are in our possession. We have spent large sums in obtaining the rarer insects, and some who have done so had only in view their possession of them, that they might gloat over them and say, 'I gave so much for this, is it not a valuable addition?' The silver net has done more towards enriching many collections in a few days than weeks of industry has done for the working-collector. How many have lived in the neighbourhood of some of the choicest things for a length of time without ever discovering that they were there, and when shown them would scarcely believe the tale. However, damp feet and a little fatigue may be easily avoided by the payment of a few shillings. Now, I do not wish to be misunderstood, nor have it thought that I wish merely to treat my brethren rudely. Far be it from me to do so. It is my desire and wish, that from amongst us may spring up men with minds so large as to be able to compete with those departed and on the wane, and at the same time to be as free to communicate to their humble followers as these last are to emulate them. Nor would I have them lean too much on any one as a guide. Our science is not yet so perfect but that some other paths may be made, or those already made better harmonized. A man can never be an entomologist, nor any other *ologist*, if he sits continually by his fireside. He must betake himself to the fields and woods and see Nature as she is; study her carefully and record her lessons faithfully in his book. He must feel that

"All places that the eye of heaven visits
Are to a wise man ports and happy havens;"

that necessities have come so thick upon him, unless he uses now his utmost efforts all his former doings are as nothing. For what is a collection of insects, though it were the finest in the kingdom, if its possessor sees only skin-deep into their usefulness and design. It appears to me to resemble very much a man with a library, formed of the choicest authors of various languages, and of which he can make no use; or as a child with a picture-book, very well to please the eye.

Then we very much want carefully compiled local lists, published in such a periodical as the 'Zoologist,' containing not merely the record of the capture of the insects themselves, but of their times of appearance, and, as far as practicable, notices of their previous stages, the food of the larvæ, and whether common. Nor must any one who takes such a task upon himself be tied to old names and defunct lists: he must travel with the age. This has been done, but such have only surface views. For it is a very erroneous and stupid notion, to think that because a new nomenclature has been adopted by recent authors, that these authors are taking liberties. Believe me they know better than those who cavil at such seeming innovations. There is also a necessity for adhering to one system, for without one accepted rule we should be for ever in confusion, as soldiers in a field without a leader, we should not know whom to follow. Then we want popular lectures delivered on Entomology: this would be a great feature, and it also bears its necessity with it. The artizan and the mechanic have done not a little towards the advancement of the study in our land: they have been a great means in making us familiar with many of the rarer insects; and surely the alehouse would be robbed of many a visitor were this course adopted: they would be taught to see the benefits which they would bestow on themselves and others; they would be raised from the sensual to the spiritual; their minds would become enlarged, and another link in the great chain grasped by an Almighty hand would appeal to their senses, and declare to them his Divine wisdom. Barren and stony indeed would be the ground, and its richer parts overrun with foulest reptiles, if all the seed that fell should find no rooting-place, or spring up only to be devoured.

Then we want the collectors of Micro-Lepidoptera, in their various districts, to gather the larvæ, each collector attaching himself to a genus, and only quitting it for another after he is satisfied that he has fairly worked out of his ground all that it possesses. He could retain a portion of each kind he might meet with, for the purpose of studying their economy; for familiarizing himself with their habits; and for being able to point out to others what might be expected from such a case-bearer, such a miner, &c.: the other portion could be sent to Mr. Stainton or to Mr. Douglas, these gentlemen being only too anxious to find useful correspondents in such matters. The necessity for this may be learned by perusing the Prospectus enclosed in the February number of the 'Zoologist,' or by referring to

the papers published in the Entomological Society's 'Transactions,' by Mr. Douglas.

These are one or two of the necessities most to be desired by all who are desirous of being ranked as entomologists; things which no single man by himself can ever hope to get through, and the little which each one might perform, were it only the discovery of a single new species (I mean the transformations), would serve to show that he was pulling in the right direction, that is, towards the removal of the great difficulties which have hitherto enveloped these interesting creatures, and which has hitherto prevented their being so well known by us; and to finish, I would say to each one,

"Teach thy necessity to reason thus;
There is no virtue like necessity."

JOHN SCOTT.

Ferry Road, Renfrew,
Feb. 27. 1854.

NOTICES OF NEW BOOKS.

'Geodephaga Britannica. A Monograph of the Carnivorous Ground-Beetles indigenous to the British Isles.' By JOHN FREDERIC DAWSON, LL.B. London: Van Voorst, 1854. Demy 8vo. 212 pp. text, 3 plates.

WE believe that there is no man in the United Kingdom so capable of undertaking the task which is here completed as Mr. Dawson; and we unhesitatingly pronounce the work an invaluable contribution to British Entomology. Mr. Dawson is not merely one of those who labour with unwearying assiduity at any subject towards which they feel a drawing, but he possesses a more rare and more useful faculty, the power of methodising his labours, so that they may be available to others. The subject investigated by Mr. Dawson is surrounded with difficulties: the species themselves are obscure; the prior descriptions are very imperfect; and the synonymy is involved in all but inextricable confusion: nevertheless our pains-taking author has dissipated much of the obscure, unveiled the tangled synonymy, and

thrown a flood of light on every part of his subject. Hence it is with sincere pleasure that we recommend the 'Geodephaga Britannica' to our readers, as a work that must take its place beside those classics of British Entomology, Haworth's Lepidoptera, Kirby's Bees, and Shuckard's Fossorial Hymenoptera.

Having said thus much, it seems desirable to add a few critical remarks, in order to prove to our readers and the author, *first*, that we are really acquainted with the work we are praising; and, *secondly*, to point out little matters that we think susceptible of improvement.

The greatest fault in the book we consider to be the want of uniformity in the *commencement* of the detailed English descriptions: we have a *penchant*, perhaps amounting to a weakness, for those little aids which adherence to a formal plan always affords: we would not dictate to an author that he should treat colour, or sculpture, or size, as of paramount importance, but we would, if we could, confine him to something like order in this respect. Now, Mr. Dawson's definitions appear *in this respect* to be without order: we do not assert, or even hint, that there is no order, or that the descriptions themselves are insufficient, but that, on the very threshold of the definitions, colour, form, size and diagnosis are perplexingly mingled. Of course we must illustrate this; and we might possibly do so with some humour, and certainly with some effect, were we to select extreme examples from different parts of the book; but a more ingenuous, though less illustrative, course, is to take a dozen consecutive species in the same genus, and quoting each definition as far as the first comma: here they are:—

"Anchomenus lævis. Head and thorax greenish brass,

"A. viduus. Larger than lævis,

"A. mæstus. This species is rather smaller than viduus,

"A. atratus. The form of this species is intermediate between those of mæstus and fuliginosus,

"A. fuliginosus. Head black,

"A. gracilis. This species is much more delicately formed than the preceding and differs in several particulars,

"A. scitulus. Shining black,

"A. micans. Oblong ovate,

"A. piceus. Head and thorax black,

"A. pelidnus. Elongate,

"A. Thoreyi. Head black or pitchy black,

"A. quadripunctatus. This rare and remarkable species is smaller than any of the preceding,"—pp. 88—95.

It will be seen that five of these definitions have reference to colour, three to magnitude, and four to form; five of them are, moreover, comparative, the reader in most instances being unacquainted with the name of the insect with which the author compares them: thus the name of *Anchomenus lævis*, which, by the way, is equivalent to the more familiar *Agonum parum-punctatum*, does not we believe exist in any prior work, or in any cabinet whatever, British or Foreign; so that we have a second problem added to the first;—we have to find out what *Anchomenus lævis* is, and what are its dimensions, before we can contrast it with *Anchomenus viduus*; and so on with the rest. In connexion with this subject, we take the liberty of observing that each of the long paragraphs comprising these English definitions should have been broken into four, and arranged thus:—

[*Head*, black, smooth and shining, with an oblong impression on each side between the antennæ, which, with the palpi, are black, &c.

Thorax, greenish black or olivaceous or entirely black, the breadth in the middle greater than the length, sides rounded and deeply margined, and the margins broadly reflexed, especially at the hinder angles, &c.

Elytra, greenish brass, ovate, much broader than the thorax, shoulders rounded and sometimes elevated, sides widest behind the middle, apex obliquely sinuated, &c.

Obs.—Larger than *lævis*, but resembling it in form].

A second observation we venture to make, is that the author sometimes guesses, when he might have readily ascertained the truth. Example:—

“*Helobia impressa*. I have not seen this insect: it probably belongs to *Nebria nivalis*,” Prel. Obs. viii.

Who would not have preferred to have read as follows:—

“I have carefully examined the series of specimens of this insect, and without hesitation refer them to *Nebria nivalis*.”

Again, sticklers as we are for priority in nomenclature, we conceive that the love of change may perhaps carry the principle too far: at page 167 we find the name of “*Trechus rubens*” substituted for that of “*Bembidium paludosum*.” Mr. Dawson thinks that our familiar insect *may be* the *Carabus rubens* of Fabricius, but this conclusion does not result from an examination of the original specimen or the original description.

From Mr. Dawson’s changes of orthography we must express unqualified dissent: thus, in “*Aëpus*,” altered to “*Aëpys*,” we think

the change highly objectionable: 1st, it subverts the law of priority; 2ndly, it is inelegant; 3rdly, the alleged *undè derivatur*, "altus pro profundus" is conjectural. Again, the word "Orinonum" is altered to "Orinomus," in violation, as we opine, to the laws of elegance, euphony and grammar.

These critical observations, will, we think, show that we have carefully gone through this valuable volume. We regret that works of this character know no second edition, or we should advise the author maturely to consider our views; as it is, suggestions for improvements are useless.

PROCEEDINGS OF SOCIETIES.

ENTOMOLOGICAL SOCIETY.

August 7, 1854.—H. T. STANTON, Esq., Vice-President, in the chair.

Donations.

The following donations were announced, and thanks ordered to be given to the donors:—*'Annales de la Société Entomologique de France,'* 2me Série, tome x. 1852, and 3me Série, tome i. 1853; by the Society. *'Mémoires de la Société de Physique et d'Histoire Naturelle de Genève,'* tome xiii. 2me partie; by the Society. *'Journal of the Royal Agricultural Society of England,'* vol. xv. part 1; by the Society. *'Monographie des Guêpes Sociales,'* cahier 6; by the Author, M. H. de Saussure. *'Revue et Magasin de Zoologie,'* 1853, No. 10, and 1854, Nos. 5 and 6; by the Editor, M. Guérin-Ménéville. The *'Athenæum'* for July; by the Editor. The *'Literary Gazette'* for July; by the Editor. The *'Journal of the Society of Arts'* for July; by the Society. The *'Zoologist'* for August; by the Editor. *'Entomologische Zeitung,'* for May and June; by the Entomological Society of Stettin. *'A List of the British Tineina, for interchange among collectors and for labels,'* by the Author, H. T. Stanton, Esq. Specimens of *Anthrocera Minos* for distribution among the Members; by A. G. More, Esq.

Election of a Member.

J. R. Turner, Esq., Manchester, was elected a Subscriber.

Exhibitions.

Mr. Boyd exhibited *Limacodes Asellus*, ♂ and ♀, recently taken in the New Forest.

Mr. Ingpen exhibited a box of Australian Diptera and Hymenoptera, chiefly from the vicinity of Adelaide. He also exhibited an exotic wasps' nest, but by what species made he was not aware, which he had examined microscopically, and found to be wholly

composed of fungoid matter. He thought it probable that the nests of some of our native species were not made altogether of wood, as is generally believed, and in corroboration of this idea exhibited a piece of decayed wood from one of the cedars in the Botanic Garden at Chelsea, in which was a layer of fungus, and wasps, he said, were observed to frequent this tree for building materials.

Mr. Curtis said he had often seen wasps scraping off and carrying away particles from wooden palings where there certainly was no fungus.

Mr. Wing said he had recently seen wasps carrying away the pile from the leaves of a species of mullein.

Mr. Stevens exhibited a drawing of a variety of a larva of *Acherontia Atropos* made by a gentleman, who thought it might be a distinct species, but the imago reared from it (which was also exhibited) proved to be only a very slight variety; and Mr. Westwood, referring to Fuessly's 'Archives,' showed that the same variation from the ordinary colour of the larva was there figured.

Mr. Stevens also exhibited the very rare species of *Curculionidæ*, *Trachodes hispidus*; this single specimen having been taken by Mr. Plant, of Leicester, by sweeping under oaks in a wood near that place.

Mr. Boddy exhibited a living specimen of the rare *Ludius ferrugineus*, of which the larva was found in a rotten ash tree near London, on the 3rd of September, 1853, and the beetle appeared on the 9th of July last. He also exhibited a living larva of the same species, respecting which Mr. Westwood observed the last segment of the body had not the least denticulation, thus affording a good character for generic distinction.

Mr. Douglas exhibited a series of specimens of *Grapholita nisella*, *Linn.*, bred from catkins of sallow and poplar, including all the varieties *Pavonana*, *Bæberana*, *cuspidana*, *rhombifasciana* and *cinerana*, which had been placed together by Mr. H. Doubleday, and might now be deemed without doubt to be but one species.

Notes on Irish Sphæriæ.

Mr. A. R. Hogan, of Dublin, sent the following communication respecting two examples of a *Sphæria*, accompanied by the specimens referred to.

"The Lepidopterous larva bearing the *Sphæriæ* now laid before the Society was taken by me on the 10th of March, 1853, while digging for pupæ at the roots of an oak tree in Mount Merrion, a demesne belonging to the Right Hon. Sidney Herbert, and not far distant from the place where I live. The *Sphæriæ* were at the time quite young, the tallest not being more than a quarter of an inch in height; and the species appeared to be the same as that on a former occasion (5th July, 1852), exhibited at a meeting of the Entomological Society, with no apparent difference but that of the shoots being somewhat stronger and thicker. The following entry appears in my notebook, made on the 12th of April:—'On examining the larva taken last month, which by Professor Harvey's advice has been kept moist in a jam-pot filled with clay and moss, and covered with a piece of glass, I found fully a dozen fresh sprouts on it, pure white, and one of them about the height of a line, shaped like the point of a dagger. From that time the *Sphæriæ* continued to grow, some more and some less rapidly, for several months, always retaining the white point at the end of each stem, generally covered with small drops of moisture, till at length the cold of winter seemed to deaden, though it did not destroy, their vitality. Meantime none of the shoots showed any

sign of fructification, without which Professor Harvey said that it would be impossible to identify the species. In autumn I tried the experiment of placing a dead larva of *Pygæra Bucephala* and one or two other species in the same pot where the *Sphæria* were growing, in order to see whether any of the seed might be communicated to these larvæ from the moss (as in the first instance I met with evidently was the case), but without the desired effect.

"As early spring opened the *Sphæria* again threw out fresh shoots, some of the latter forming branches from the old ones whose extremities had withered away: this will be seen by an examination of the specimen, and it will also be remarked that there is a great diversity in the relative size of the shoots, one or two of them being so fine and delicate as hardly to be perceptible at first sight. At this stage of their growth, however, the space in which they were confined being manifestly too small, and seeming to cramp their existence, I could not resist the temptation (though from the great delicacy of the plants I knew it would be attended with risk) of transferring the whole into a larger vessel, where they might enjoy more space, more light and more air; but this experiment proved fatal, from what special cause I know not, and the entire nursery died away by slow degrees.

"I should previously have stated that the other example of *Sphæria* now exhibited, that of the chrysalis, was found at the foot of an old hawthorn tree at Roebuck, on the 27th of January of this year,—that the large shoot was then about an inch long, which length was soon trebled,—and that it came to its end in the same way and along with its brethren.

"In putting together these notes I have merely detailed the facts that fell under my own observation, and seem to come within the sphere of entomologists; the investigation of the plants and of their origin I leave to the botanist: yet, in conclusion, I may mention that as far as I can learn there has not hitherto been recorded any instance in Ireland similar to the one just described: the Rev. Joseph Greene indeed informs me that he saw a specimen at Powerscourt, but, as he did not preserve it, no further light can from this circumstance be brought to bear on the subject."

This kind of parasitism of vegetable upon animal bodies being rare, especially in Europe, it is to be hoped that Mr. Hogan may succeed in finding other specimens and rearing them to maturity.

Species of Trochilium and Cynips reared from American Oak-galls.

Mr. Westwood stated that from some galls of *Quercus palustris* received from North America, and deposited in the Museum in the Botanic Gardens at Kew, several specimens of a species of *Trochilium* had emerged, two of which he now exhibited. The larvæ had doubtless fed in the galls, although such a proceeding was quite abnormal to the genus, their excrement being visible near the apertures where the pupæ-cases were left projecting. He could not find that the species had been noticed by Dr. Harris, in his 'Monograph on the American Sphingidæ,' and he had therefore described the insect in the 'Gardener's Chronicle,' under the name of *T. Gallivorum*. Among the galls he also found specimens of the *Cynips* causing the formation, which he had described under the name of *C. palliceus*. The following are the descriptions referred to:—

"*Trochilium Gallivorum*.—Measures 8 lines in the expanse of the fore wings and 5 lines in the length of the body. It is of a blue-black colour, with two slender, pale yellow diverging lines on the sides of the thorax above, and with the edges of the tail also pale yellow; the wings are transparent, except the dark fore margin, a curved bar across the middle, and a pale brown apical border; the legs are yellow, with a dark ring round the tibiæ near the tips."

"*Cynips palliceps*.—Of a black colour, with the head and front and under parts of the thorax pale yellow; the males are distinguished by the large size of their heads. Length rather less than 2 lines."

Economy of Evania.

Mr. Westwood said a connection between *Blatta* and *Evania* had often been noticed without the nature of it having been understood: he had recently had an opportunity of investigating the subject, a correspondent having sent him some egg-capsules of an exotic species of *Blatta* imported with Orchidaceous plants, and he had found *Evania appendigaster*, in the several states of larva, pupa and imago, within these capsules.

Captures by Mr. Curtis.

Mr. Curtis said that when on a visit recently to Mr. Dale, at Glanvilles Wootton, he had taken the following insects:—*Myrmica graminicola*, ♀ only; *Ephyra orbicularia*, June 10th, a fine ♂; *Crambus uliginosus*, June 15th to July 1st; *Limnobia 6-guttata*, Hal., June 15th to July 1st; *Acentropus Garnorisii*, June 15th to July 1st. Concerning the latter insect he should make a communication at a future Meeting. At Clifton he saw Mr. Walcott's beautiful collection of bees, from which he exhibited two captured with the wings in a rudimentary state. At Mr. Vaughan's, at Bristol, he noticed the method of capturing small moths in glass tubes, invented by Mr. Brown, of Burton-on-Trent, and exhibited a sample.

Singular Beetle found in South-American Ants' Nests.

Mr. Westwood read a notice, accompanied by drawings of dissections, of a very curious beetle found by Mr. Bates in ants' nests, in the Valley of the Amazon, possessing the characters of several families, and so anomalous that it was very difficult to indicate its nearest relationship; and he further remarked that it was very singular that all the many Coleopterous insects found in ants' nests should have some peculiarity of form or structure. He described the present species under the name of *Gnostis Formicicola*.

15 SE 54

New British Hemerobii, &c.

Mr. Curtis read a paper on two new British species of *Hemerobius*, with remarks upon the synonymy of *Coniopteryx*, &c.—J. W. D.

CONTENTS.

MOLLUSKS.—A List of the Mollusca hitherto found in the Province of Moray and in the Moray Firth, *Rev. George Gordon*, 4421. Some American Snails naturalized in Yorkshire, *G. Norman, Esq.*, 4435.

INSECTS.—Note on *Zygæna Minos*, *A. G. More, Esq.*, 4435. Captures in Sutherlandshire, *E. C. Buxton, Esq.*, 4436. Captures in Leicestershire, *Frederick Bates, Esq.*, 4437. Correction of an Error, *Octavius Pickard-Cambridge, Esq.*, 4438.

BIRDS.—Note on the Barn Owl, *J. H. Gurney, Esq.*, 4438. Parrots at large in Norfolk, *Thomas Fowell Buxton, Esq.*, 4439. Occurrence of the Rose-coloured Pastor near Dublin, *L. H. Irby, Esq.*, 4439. Occurrence of the Rose-coloured Pastor in the Isle of Cumbrae, *Alfred Merle Norman, Esq.*, 4439. Note on the occurrence of the Gray-headed Wagtail at Lowestoft, *J. H. Gurney, Esq.*, 4440. Peculiarities of Grouse, *J. Gratton, Esq.*, 4440. Tufted Duck breeding at Osberton; Red-necked Phalarope killed near York, *W. M. E. Milner, Esq., M.P.*, 4440, 4441. Singular Hatch of Ducklings, *R. Wakefield, Esq.*, 4441. Birds shot in Egypt, *E. C. Taylor, Esq.*, 4441.

FISHES.—The Lesser Weever, *John Joseph Briggs, Esq.*, 4443.

Things hoped for, *John Scott, Esq.*, 4443.

NOTICES OF NEW BOOKS.—‘*Geodephaga Britannica*,’ 4446.

PROCEEDINGS OF SOCIETIES.—Entomological, 4449.

WORK RECEIVED FOR REVIEW.—‘Memoir of the late William Baker, of Bridgewater.’

In Post 8vo, a New Edition, with 405 Woodcuts, price 14s.

CATLOW'S POPULAR CONCHOLOGY; or, The Shell Cabinet arranged according to the Modern System. With a Detailed Account of the Animals, and a complete Descriptive List of the Families and Genera of Recent and Fossil Shells. Second Edition, much improved.

London: Longman, Brown, Green and Longmans.

BIRDS' EGGS.

THE SECOND PORTION of RARE EGGS belonging to *W. FOLKES, Esq.*, will be **SOLD BY AUCTION**, by *Mr. J. C. STEVENS*, 38, King Street, Covent Garden, early in October, of which due Notice will be given. Catalogues may be had as above ten days before the Sale.

WORKS ON ENTOMOLOGY.

	£.	s.	d.
KIRBY'S Monographia Apum Angliæ, 2 vols. Demy 8vo, bds.	1	0	0
MARSHAM'S Coleoptera, 1 vol. Demy 8vo, bds.	0	12	6
STANTON'S List of British Tineina, for interchange among Collectors (per doz.)	0	2	6
The same List, on thick paper and printed on one side, for labels (per doz.)	0	6	6

 All these prices include postage. *Note.*—The *Royal* copy of Kirby's Bees is sold.

Edward Newman, 9, Devonshire Street, Bishopsgate.

EDWARD NEWMAN, PRINTER, 9, DEVONSHIRE STREET, BISHOPSGATE.